

### **Abstract**

The invention relates to the use of at least two lactic acid bacterial strains selected from the group comprising *Pediococcus pentosaceus* 16:1 (LMG P-20608), *Leuconostoc mesenteroides* 23-77:1 (LMG P-20607), *Lactobacillus paracasei* subsp paracasei F-19 (LMG P-17806), and *Lactobacillus plantarum* 2362 (LMG P-20606) for the manufacturing of a formulation for the prevention or treatment of stress-induced inflammatory disorder.